D02. Concentration of heavy metals at selected mangrove area (East and West Coast of Malaysia)

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Mangrove area is one important habitat for animal, plant and microorganism to survive and ensure ecosystem sustainability in the environment. Due to factors such as oil spillage, fishing, tourism and industrial activity done by human, level of heavy metal trapped by the surface mangrove sediment increases. 1 to 5 cm mangrove surface sediment taken for analysis from each six sites of both East and West Coast. Atomic Absorption Spectrophotometer used to detect concentration of heavy metal from digested sediment samples. Pollution Load Index, *PLI* and Enrichment factor, *EF* were estimated to understand pollution level in the study sites. In this study, average concentration of Pb, Zn, Ni, Cr and Cu in West Coast area were 0.888ppm, 0.484ppm, 0.471ppm, 4.202ppm and 0.316ppm respectively. While average concentration of Pb, Zn, Ni, Cr and Cu were 0.407ppm, 1.437ppm, 0.176ppm, 0.342ppm, 1.269ppm respectively. In general, concentration of some metals (Pb, Ni, Zn, Cr, and Cu) at West Coast are higher than East Coast area. This indicate that many anthropogenic activities act as factors that lead to the increasing metal concentrations in the mangrove sediment at West Coast area compared to East Coast area and this will give serious affect to human health and aquatic life there.